percutaneous mitral valve balloon dilation is well established with inoue balloon, its comparison with Multi-track balloon during pregnancy is needed.
Methods: We compared the clinical and obstetric outcomes in 188 women who were treated with percutaneous mitral valve balloon dilation Multi-track (group I, 80 patients) or inoue balloon (group II, 108 patients) for heart failure (NIHA classII,III,and IV) due to mitral stenosis during pregnancy.
Results: In our study, percutaneous balloon dilation of the mitral valve had a success rate of 99.1 % as regard safely completed procedure and a rate of 94.4% for group I and 92.9% for group II as demonstrated by the final mitral valve area achieved. This improvement was followed by a marked decrease in the mitral valve gradient, left atrial pressure and pulmonary artery pressure and increase of mitral valve area by planimetry. Patients in both groups had similar improvements in symptoms. Patients who underwent percutaneous balloon dilation had no significant difference fetal complications, with no maternal mortality (2 fetal death in group I vs. 1 deaths in group II, p >0.05).

		Group(1) Multi-track	P. value	Group(2) Inoue	P. value	P. value
LA		4.14+0.25		4.1+0.25		NS
EF		60.27+4.62		61.35+4.65		NS
Wilking,s MV score		7.05+1.1		7.21+0.57		NS
MVA	Pre dilatation	1.1+0.18	<0.01	1.07+0.16	<0.01	NS
	Post dilatation	2.02+0.23		1.8+0.28		<0.05
PAP	Pre dilatation	54.36+8.5	<0.01	56.12+8.8	<0.01	NS
	Post dilatation	29.3+4.6		30.3+4.7		NS
Mean Gr (echo)	Pre dilatation	19.88+3.49 6.96+1.22		20.78+3.26		
	Post dilatation			7.27+1.14		
Max Gr (echo)	Pre dilatation	35.8+6.29 19.69+3.46		39.49+6.19		
	Post dilatation			15.1+2.35		

Conclusions: Percutaneous balloon mitral valvuloplasty is safe and effective and appears to appropriate using either inoue or Multi-track balloons during pregnancy.

TCT-510

Swiss MitraClip Experience In High Risk Patients

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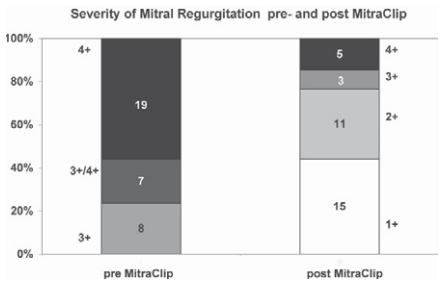
Patients with severe mitral regurgitation (MR) and high operative risk remain frequently undertreated although their morbidity and mortality is usually high. We report on the initial experience in Switzerland with a novel technique of transvenous mitral valve reconstruction utilizing the MitraClip®-system.
Methods: Patients with severe MR (>3+) and high operative risk (as defined by the logistic EuroScore or STS-Score) or declined for surgical repair were considered. Percutaneous MitraClip® implantation was performed in the cath-lab setting with transesophageal monitoring under general anesthesia.
Results: Since 2009 we treated 34 high-risk patients with a mean age of 70±10 years (69% male; logEuroScore 27±20%, STS-Score 6±8%; Mean ±SD) and a left ventricular ejection fraction of 42±17% (Mean±SD). The origin of the MR was functional-ischemic in 13 cases (38%), functional non-ischemic in 6 cases (18%) and degenerative in 10 cases (29%). In 5 patients the cause of the MR was mixed.
Acute procedural success (APS), as it has been proposed previously by Feldman et al. is defined as placement of 1 or more clips resulting in a discharge MR severity of ≤2+. APS could be demonstrated in 26 of 34 patients (76%), which is similar to recent reports. In 15 patients with APS (58%) MR decreased to degree 1+. Median of hospital stay was 4 days and NYHA-class improved from 3.3±0.5 to 2.2±0.8 at 3 months.



Conclusion: In Switzerland 34 high-risk patients with severe MR have been treated percutaneously with the MitraClip® system and the APS rate is similar to previous reports. This new technique bears important potential in particular in those patients not qualifiying for surgical repair due to high operative risk.

Vascular Access and Closure Devices (Including Transradial)

(Abstract Nos 511-524)

TCT-511

Impact of Radial Arterial Access for PCI on Bleeding Complications in Patients With Acute Coronary Syndromes in Clinical Practice: Results of the Euro Heart Survey PCI-Registry

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Background: In patients undergoing PCI for acute coronary syndromes (ACS) stringent antithrombotic treatment is warranted, which increases the risk of bleeding complications at the arterial puncture site. Little is known about differences in bleeding complications between radial and femoral arterial access in clinical practice.
Methods: Between 2005 and 2008, 47,407 consecutive patients undergoing PCI were enrolled into the PCI-Registry of the Euro Heart Survey Programme to document patient characteristics, PCI details and hospital complications. We examined the impact of the radial versus femoral arterial access on major bleeding complications in PCI for ACS.
Results: A total of 24,257 patients underwent PCI for ACS, in 3280 (13.5%) radial and in 20,977 (86.5%) patients femoral arterial access was used. Patients with radial access less often were female, less often had already had prior PCI/CABG and less often presented with acute STEMI or with cardiogenic shock. There were no differences in the use of antithrombotic agents including GP IIb/IIIa receptor blockers between both groups. Overall, major bleeding complications were rare in both groups. In the radial access group less major bleeding complications were observed as compared to the femoral access. After correction for differences in the baseline characteristics and the kind of ACS (STEMI vs NSTE-ACS), the radial access for PCI was associated with a significant reduction in the risk for major bleeding complications as compared to the femoral access in clinical practice (OR 0.28, 95% CI 0.13-0.57). No difference was found in death / MI / stroke (OR 0.85, 95% CI 0.59-1.23).

	Radial Access n=3280	Femoral Access n=20977	p-value
Age [years]	65	64	ns
Female Gender	23.4 %	27.2 %	<0.01
Prior MI	23.2 %	26.9 %	<0.01
Prior CABG	2.7 %	5.5 %	<0.01
Peripheral Artery Disease	7.7 %	5.6 %	<0.01
STEMI	21.9 %	35.1 %	<0.01
Cardiogenic shock	0.7 %	3.7 %	ns
GP IIb/IIIa	34.3 %	32.1 %	<0.05
Major bleeding	0.3 %	1.2%	<0.01
Death	1.1 %	2.7 %	<0.01
Death / MI / Stroke	3.0 %	5.1 %	<0.01

Conclusion: In consecutive patients undergoing PCI for ACS in Europe, radial arterial access as compared to femoral arterial access was associated with a significantly lower rate of major bleeding complications.

TCT-512

Pre-Close Technique for Large Bore Introducer Sheaths

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Purpose: It is still common clinical practice to perform an arteriotomy for transcatheter aortic valve implantation and endovascular treatment of aortic aneurysms due to the use of large introducer sheaths. Since 1997 we used the Prostar XL Percutaneus Vascular Surgical (PVS) Device to reduce invasiveness of these procedures. Initally we used Prostar occasionally, since 2003 we use it in most of our patients.
Materials and Methods: Since 2001 we treated 243 patients (age: 36y-99y, mean age 74.4) with thoracic (n=24) or infrarenal (n=142) aneurysm as well as aortic valve stenosis (n=77). In total we used Perclosure devices to close 332 access sites for sheaths 16F or larger. All patients were treated under local anesthesia and anticoagulated with a minimum of 5000 units Heparin. The sizes of the introducer sheaths ranged from 16F to 30F. All patients underwent postinterventional clinical controls and were followed regularly by ultrasound, MRT or CT scan.
Results: Hemostasis in the cath lab could be achieved in 327/332 (98.5 %) of the treated vessels. In 4 cases manual compression and pressure dressing were necessary due to bleeding of the puncture site, in 3 cases internal compression by ballooning was performed. The following complications occured: 5 false aneurysms, 1 secondary hemorrhage, 2 dissecting aneurysms and 2 ruptured sutures. 4/332 (1.2 %) vessels needed surgical repair, 1 patient died from vascular complications not directly related to the Perclose procedure.
Conclusion: Our experience shows that percutaneous closure devices can be used on a regular basis to achieve hemostasis while using large bore introducer sheaths.

TCT-513

Lower Rate of Major Bleeding Complications With Radial Arterial Access for Elective PCI in Clinical Practice in Europe: Results of the Euro Heart Survey PCI-Registry

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Background: Over the past years the rate of radial arterial access for elective PCI has increased across Europe. However, little is known about differences in bleeding complications between radial and

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